POLYMET
MINING

June, 2009

AIR Quality

PolyMet will use state-of-the-art air-emission control equipment. The PolyMet project is considered a minor source of both hazardous and criteria pollutants under state and federal laws. While the combined controlled emissions of the mine and plant do not reach major source levels, PolyMet conducted modeling normally required of major sources to evaluate environmental impacts.

AIR EMISSION CONTROLS

Simply replacing the 1950's vintage wet scrubbers in the crushing and concentrating buildings with up-to-date wet scrubbers would have met applicable air quality standards. However, PolyMet went beyond the standards by upgrading the emission controls to bag houses, which are the best control technology available for small particulates.

HAZARDOUS AIR POLLUTANTS

PolyMet conducted modeling at the mine and plant for hazardous air pollutants (HAP), a list of 188 pollutants identified in federal law. Controlled HAP emissions at each location were well below the major source level.

An air emissions risk analysis based on this modeling concluded that the project would not have significant human health effects, even though conservative assumptions (i.e. worst case scenarios) were used in the analysis.

CRITERIA POLLUTANTS

Criteria pollutants are defined in federal regulations as particulate matter (PM), ground-level ozone, carbon monoxide, sulfur oxides (SO_x), nitrogen oxides (NO_x) and lead. They are regulated based on human health or environmental criteria.

Modeling demonstrates that air impacts from both the mine and the plant will meet National Ambient Air Quality Standards and Minnesota Ambient Air Quality Standards.

SO_2 emissions will be limited to less than 0.05% of conventional smelting processes. Sulfur in the ore will be used as a source of fuel to provide energy to process the concentrate in the autoclaves. PolyMet will not use coal and will require only small amounts of natural gas at process start-up.

Figure 1 shows total PM, SO_x and NO_x for PolyMet, the former LTV operation at the same location as PolyMet, the nearby Mesabi Nugget project, the recently permitted Minnesota Steel plant and an average taconite mine and plant.

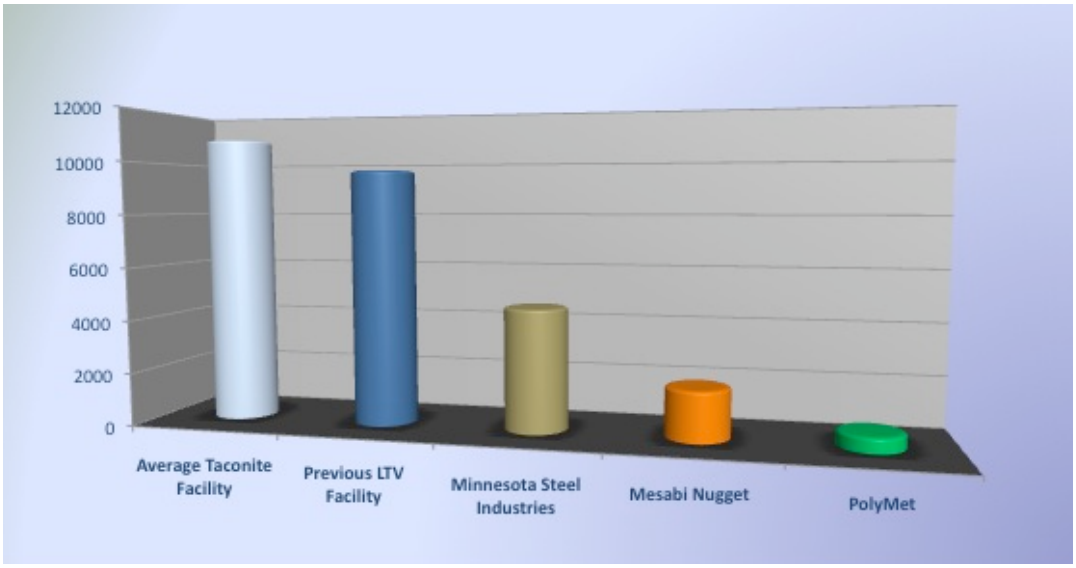

Figure 1
Comparison of Total Facility Emissions

GREENHOUSE GAS EMISSIONS

PolyMet will combine sulfide minerals present in the ore to create a chemical reaction that will fuel the processing of the ore—a practice that will require no carbon based fuel and about half the electricity of other processing methods.

Carbon dioxide (CO_2) makes up virtually all greenhouse gas emissions from mining, coming from back-up generators and space heaters for the wastewater treatment facility and from mining equipment, including excavators, haul trucks and locomotives. PolyMet's state-of-the-art locomotives will be more energy efficient than haul trucks or other locomotives because they'll have the option of using one, two or three engines depending on the weight of the load being hauled. Mine-based activities will account for 22% of PolyMet's greenhouse gas emissions.

CO_2 emissions account for 90% of the greenhouse gas emissions emitted from processing equipment, boilers, space heaters, back-up generators and vehicle traffic. Nitrous oxide (N_2O) makes up about 10% of the greenhouse gas emissions from the plant. Plant-based activities will account for 78% of PolyMet's direct greenhouse gas emissions.

INDIRECT GREENHOUSE GAS EMISSIONS

The company will purchase about 70 megawatts of electricity annually. Calculating potential emissions associated with electricity generation requires evaluating the full range of possibilities. Previously, Minnesota had a goal that "green" energy should

account for 10% of the electricity generated; a more recent state law requires utilities to generate 25% of their power from "green" energy sources by 2025.

MERCURY

Mercury is present in small amounts in the ore that PolyMet will mine. However, mercury emissions from the facility will be extremely low.

The vast majority of the mercury in PolyMet's ore will not be released to the environment. Instead, it will remain in the tailings sent to the tailings basin or in the residue sent to the residue cells where it will remain permanently because it attaches to the solids that settle and remain in the basin and residue cells.

A small amount of mercury may be emitted from mineral processing in the autoclave. These emissions were estimated by processing PolyMet ore in a pilot plant. Pilot plant tests indicated that mercury emissions in half of the samples collected contained levels that were below detectable limits of the testing equipment. An estimate of mercury emissions for PolyMet was based on using half of the detectable limits.

In addition, the chemical environment in the autoclave likely will transform most of the mercury into particulates or ionized forms that would be captured by the wet scrubber emission control system. However, to predict worse case potential mercury emissions, PolyMet conservatively assumed that all of the mercury from the autoclave would be released in a form that cannot be captured by emission control equipment.

PolyMet has no surface water discharge, therefore no mercury release via surface water.

These conservative assumptions combined suggested that the true emissions from the facility are likely to be far less that the 8 pounds of potential mercury emissions that PolyMet has estimated. As a comparison, forest fires in Minnesota emit anywhere from 240 to 550 pounds of mercury per year.

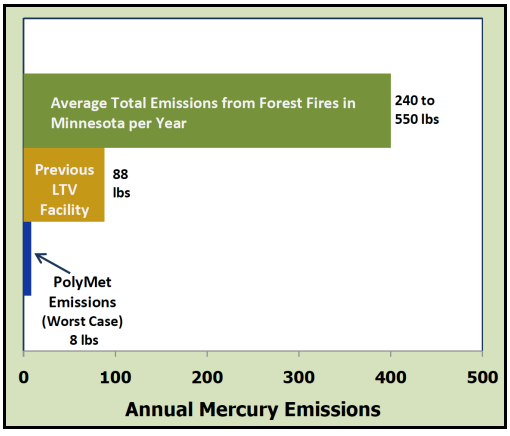

Figure 3